

Business Day 208 NEWS 8:24 pm Mon 9/22 8:00 pm - 9:00 pm			
Today's business news and information. CEO Jeffrey Jones; travel industry			
Mon 9/22	8:00 pm	8:30 pm	9:00 pm
204 SPRT	Sports Central		NFL Preview
208 NEWS	Business Day		News
209 HOME	Design at Home		Decorating
243 LA 13	Giants @ Dodgers		Postgame Show
254 LA 24	Business Report	Today in Politics	Roundtable
258 LA 28	Nexus		Natural World
280 LA 50	Auto World	Sound Check	The Movie Critics
288 LA 58	Collector's Hour		Investigation

Figure 1
Prior Art

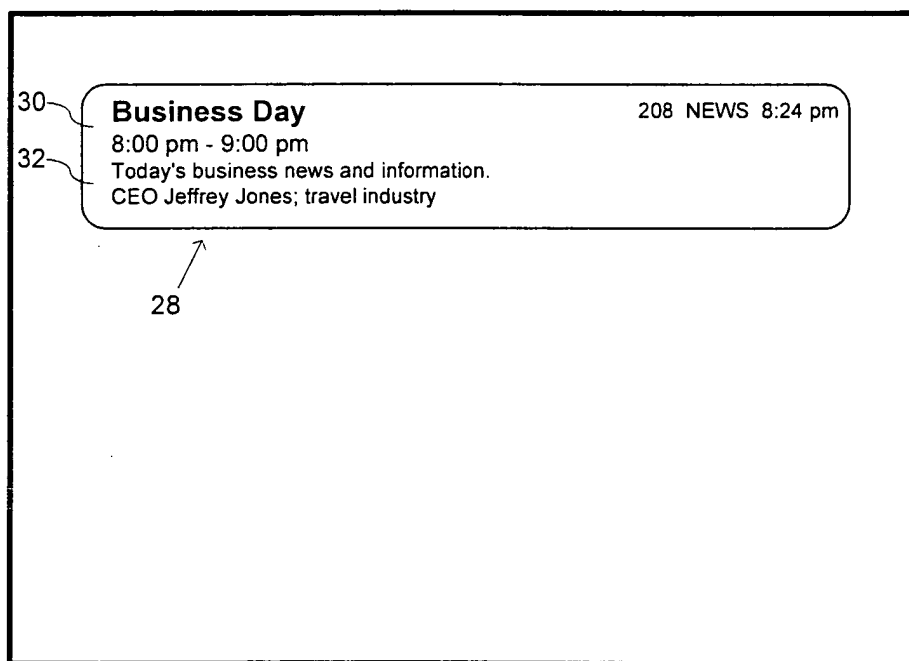


Figure 2
Prior Art

SEARCHING FOR PROGRAMS AND UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

Inventors: Gil Gavriel DUDKIEWICZ et al.

Attorney: Ronald Coslick – 051448-0211

FOLEY & LARDNER – (310) 277-2223

Sheet 2 of 19

Program identifier:	762645819.0405
Program title:	Business Day
Type:	Series
Genre:	News
Series description:	Today's business news and information
Program description:	CEO Jeffrey Jones; travel industry
Channel:	News Network
Date:	09/22/2003
Time:	8:00 pm
Duration:	60 min
Rating:	General
Language:	English
Alternate language:	Spanish
Closed caption:	Yes
Audio type:	Stereo

Conventional program metadata

Figure 3
Prior Art

SEARCHING FOR PROGRAMS AND UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

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Sheet 3 of 19

Program identifier:	762645819.0405
Program title:	Business Day
Program description:	Today's business news and information
Channel:	News Network
Date:	09/22/2003
Time:	8:00 pm
Duration:	60 min
Rating:	General
Language:	English
Alternate language:	Spanish
Closed caption:	Yes
Audio type:	Stereo
Categories:	news,8; business,9; investment,8; ...
Keywords:	Federal Reserve; interest rates; ...
Actors:	
Director:	

Program metadata

Program identifier:	762645819.0405
Program title:	Business Day
Segment identifier:	762645819.0405.0004
Segment title:	Earnings reports
Segment description:	IBM, Dell, Cisco; analyst comments
Channel:	News Network
Date:	09/22/2003
Time:	8:22 pm
Duration:	8 min
Rating:	General
Language:	English
Alternate language:	Spanish
Closed caption:	Yes
Audio type:	Stereo
Categories:	news,8; business,9; earnings,10; technology,7; ...
Keywords:	IBM; Dell; Cisco; analyst; ...
Actors:	
Director:	

Segment metadata

Figure 4

SEARCHING FOR PROGRAMS AND UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

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Sheet 4 of 19

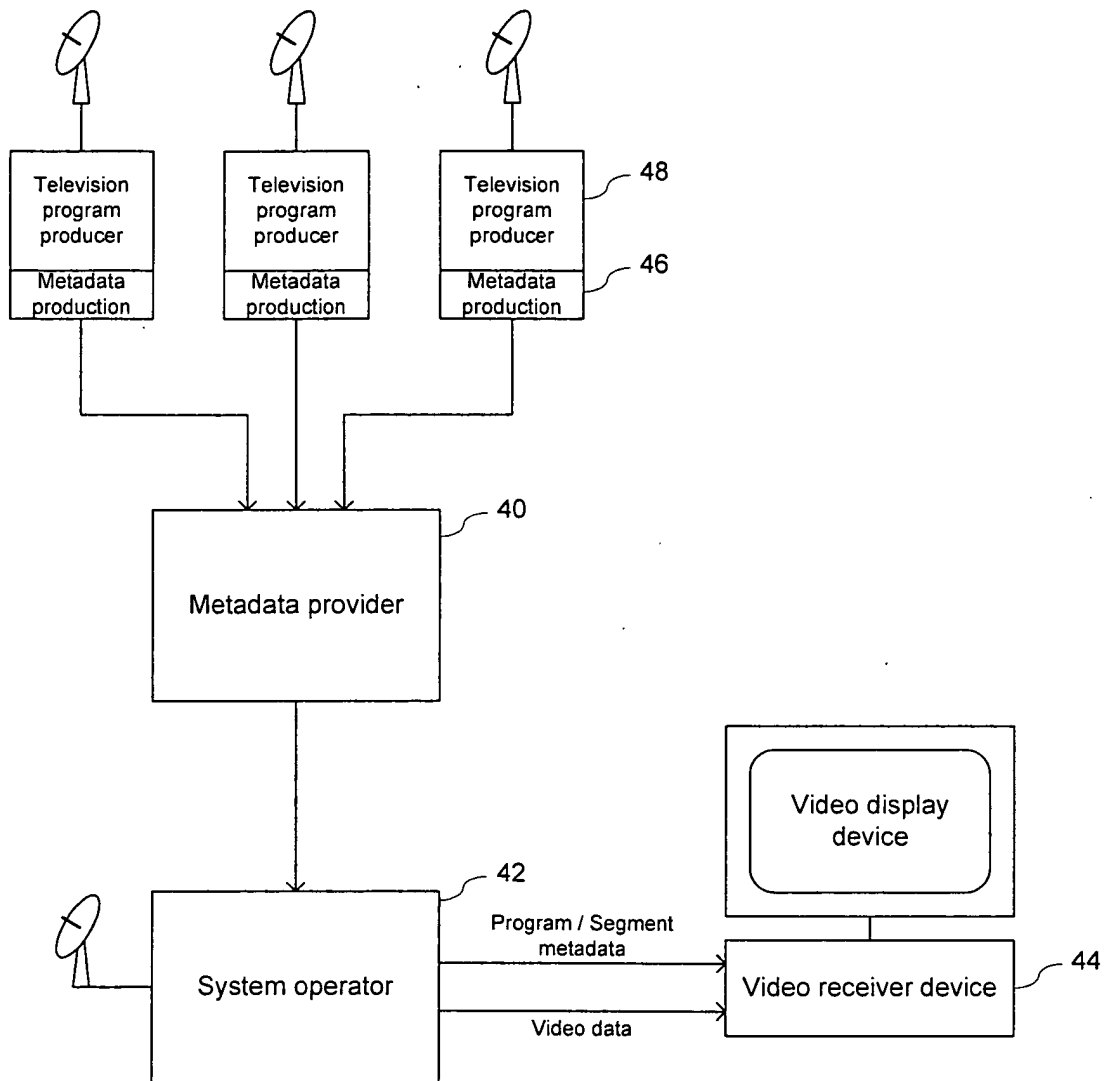


Figure 5

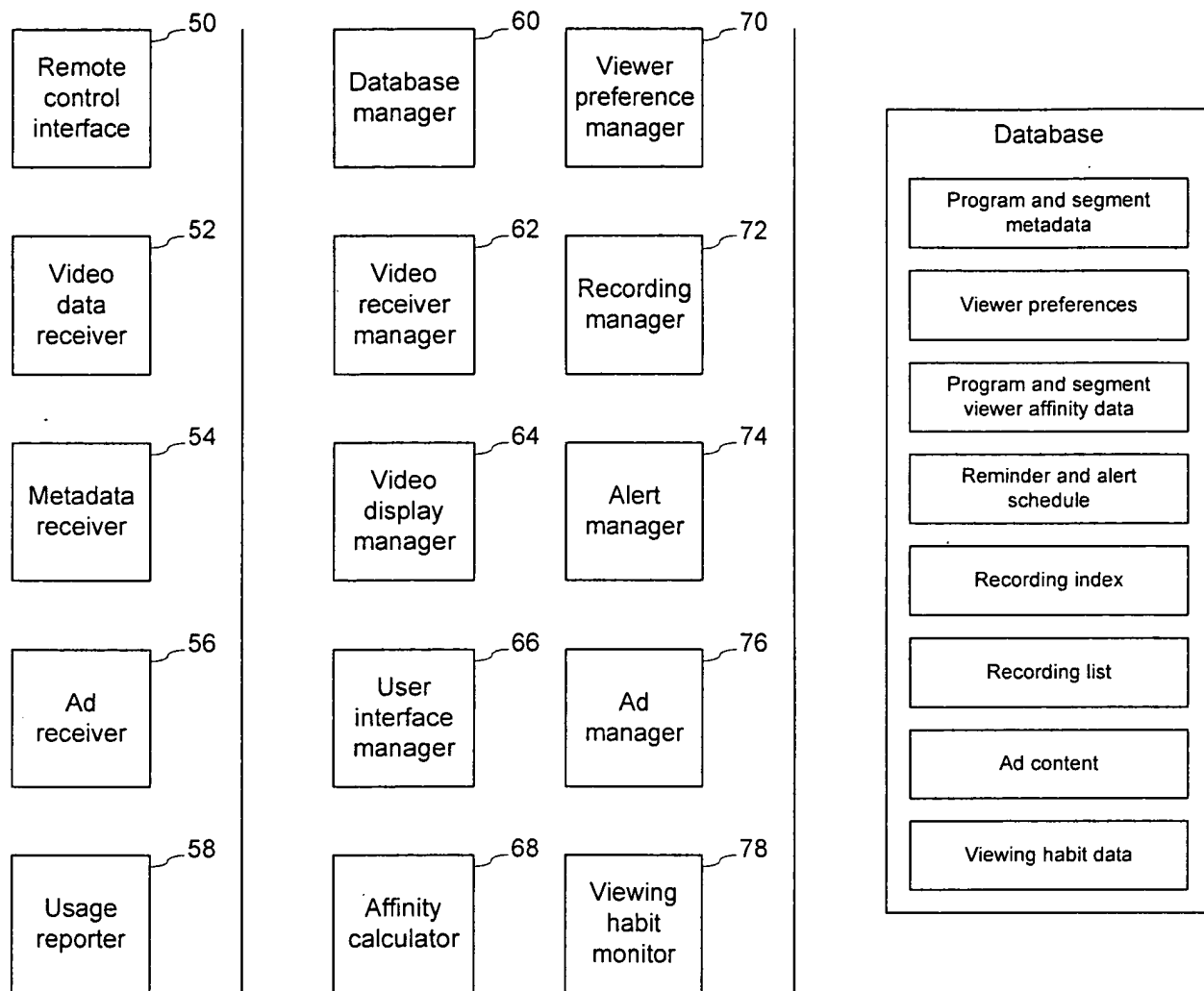


Figure 6

<u>User Command</u>	<u>Device Response</u>
Display guide	<ul style="list-style-type: none">▪ Retrieve metadata objects within a given time and channel range▪ Assemble and display guide:<ul style="list-style-type: none">▪ form program / segment grid▪ display cursor in current program / segment in grid▪ display program description in program window▪ display segment description in segment window
Move cursor	<ul style="list-style-type: none">▪ Retrieve additional metadata objects and update grid, if necessary▪ Display cursor in new program/segment in grid▪ Update contents of program and segment windows
Select program or segment	<ul style="list-style-type: none">▪ If the cursor is located on a current program or segment, tune to the channel of the program or segment▪ If the cursor is on a future program or segment:<ul style="list-style-type: none">▪ if the cursor is on a segment, display option to remind for whole program or segment only, and receive selection▪ schedule reminder for segment or program
Record	<ul style="list-style-type: none">▪ If the cursor is on a current program or segment<ul style="list-style-type: none">▪ if the cursor is on a segment, display option to record whole program or segment only and receive selection▪ begin recording▪ If the cursor is on a future program or segment:<ul style="list-style-type: none">▪ if the cursor is on a segment, display option to record whole program or segment only and receive selection▪ schedule recording▪ If the cursor is on a program or segment has already aired and that is buffered<ul style="list-style-type: none">▪ if the cursor is on a segment and the whole program is buffered, display option to store the whole program or segment only and receive selection▪ store whole program or segment as recorded content

Figure 7a

User Command

Device Response

Filter	<ul style="list-style-type: none">▪ Present user interface for selecting filtering criteria▪ Receive filtering criteria▪ Retrieve metadata objects based on filtering criteria▪ Assemble and display filtered guide
Find more like this	<ul style="list-style-type: none">▪ Retrieve program and segment metadata having categories, keywords, actors or directors in common with a program or segment on which the cursor is located▪ Display information about the retrieved programs and segments <p>OR</p> <ul style="list-style-type: none">▪ Display user interface showing categories, keywords, actors and directors of the program or segment on which the cursor is located▪ Receive input specifying which categories, keywords, actors and directors are of interest▪ Retrieve program and segment metadata having the specified categories, keywords, actors or directors▪ Display information about the retrieved programs and segments
Update preferences	<ul style="list-style-type: none">▪ Update viewer preferences to reflect approval or disapproval of categories, keywords, actors or directors of a program or segment on which the cursor is located <p>OR</p> <ul style="list-style-type: none">▪ Display user interface showing categories, keywords, actors and directors of the program or segment on which the cursor is located▪ Receive input specifying which categories, keywords, actors and directors are approved or disapproved▪ Update viewer preferences to reflect approval or disapproval of specified categories, keywords, actors or directors

Figure 7b

Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
Segment: Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS		Business Day	News		80
209 HOME	Design at Home		Decorating		
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		
288 LA 58	Collector's Hour		Investigation		

Figure 8a

Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
Segment: CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS		Business Day	News		80
209 HOME	Design at Home		Decorating		
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		
288 LA 58	Collector's Hour		Investigation		

Figure 8b

SEARCHING FOR PROGRAMS AND UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

Inventors: Gil Gavriel DUDKIEWICZ et al.

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Sheet 9 of 19

Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
Segment: Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS	Business Day		News		92
209 HOME	Design at Home		Decorating		80
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		84
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		82
288 LA 58	Collector's Hour		Investigation		

Figure 9a

Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208	88
Segment: CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min					
Mon 9/22	8:00 pm	8:30 pm	9:00 pm		86
204 SPRT	Sports Central		NFL Preview		
208 NEWS	Business Day		News		92
209 HOME	Design at Home		Decorating		80
243 LA 13	Giants @ Dodgers		Postgame Show		
254 LA 24	Business Report	Today in Politics	Roundtable		84
258 LA 28	Nexus		Natural World		
280 LA 50	Auto World	Sound Check	The Movie Critics		82
288 LA 58	Collector's Hour		Investigation		

Figure 9b

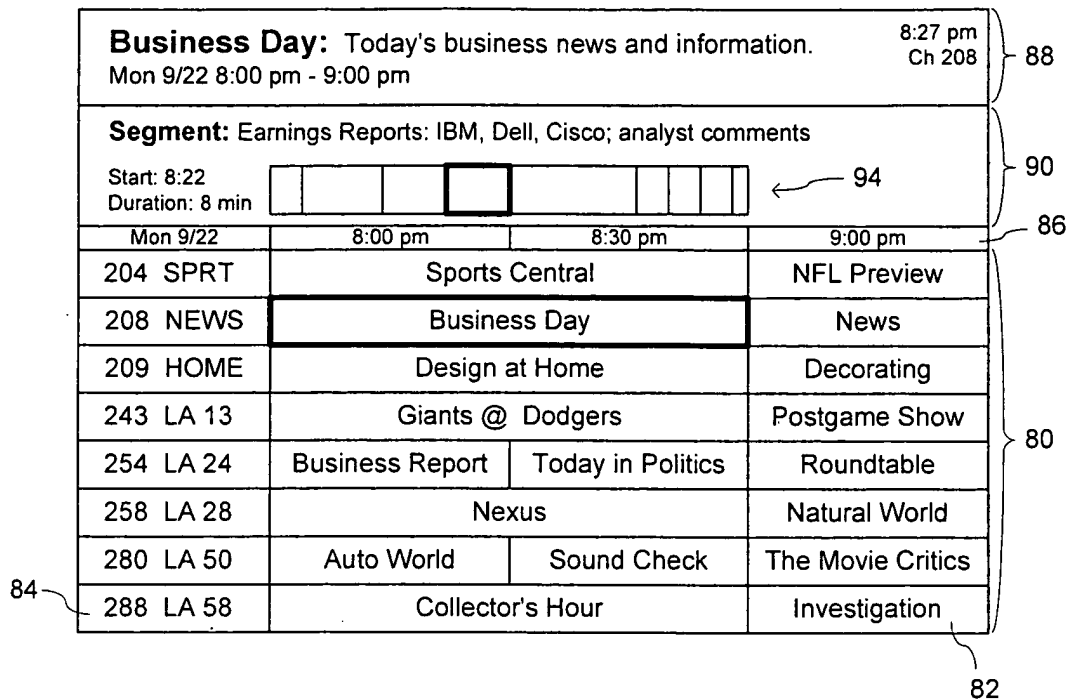


Figure 10a

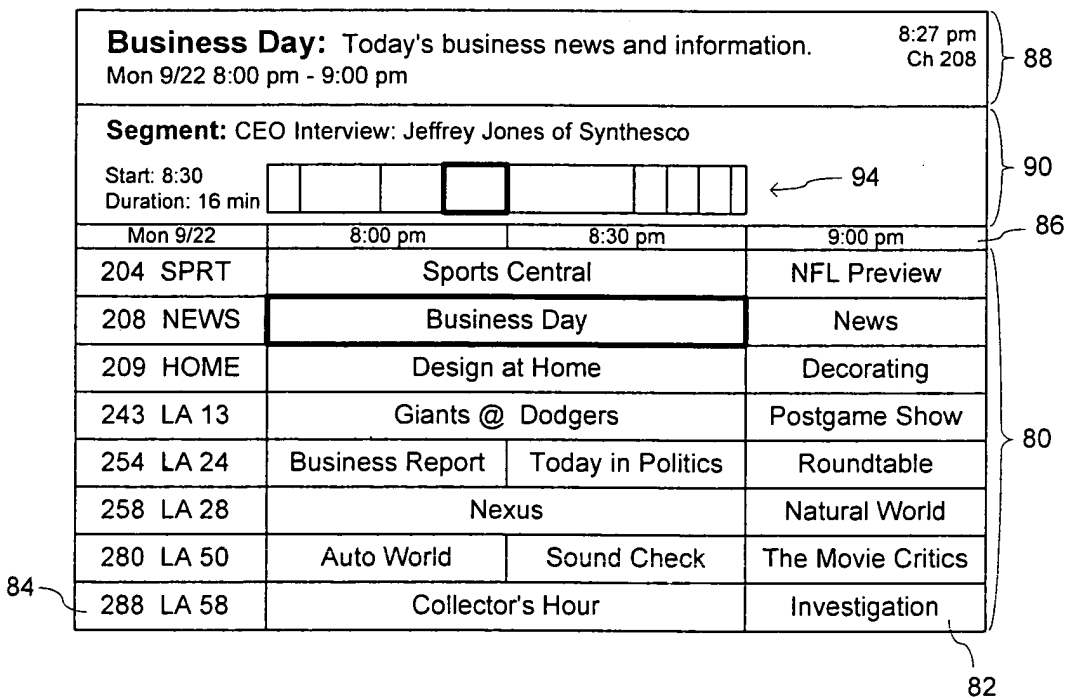


Figure 10b

SEARCHING FOR PROGRAMS AND-UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

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Sheet 11 of 19

Mon 9/22	8:00 pm	8:30 pm	9:00 pm	86
204 SPRT	Sports Central		NFL Preview	80
208 NEWS		Business Day	News	
209 HOME	Design at Home		Decorating	
Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm			8:27 pm Ch 208	90
Segment: Earnings Reports: IBM, Dell, Cisco; analyst comments				88

96 →	Segments	Start
	Business Headlines	8:00
	Market Update	8:04
	Interest Rates	8:14
	Earnings Reports	8:22
	CEO Interview	8:30
	Industry Focus	8:46
	Tech Stock Rally	8:50
	Economics Summit	8:54
	Market Recap	8:58

Figure 11a

84	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	86
	204 SPRT	Sports Central		NFL Preview	80
	208 NEWS		Business Day	News	
	209 HOME	Design at Home		Decorating	
	Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208 90
	Segment: CEO Interview: Jeffrey Jones of Synthesco				88

96 →		Segments	Start
		Business Headlines	8:00
		Market Update	8:04
		Interest Rates	8:14
		Earnings Reports	8:22
		CEO Interview	8:30
		Industry Focus	8:46
		Tech Stock Rally	8:50
		Economics Summit	8:54
		Market Recap	8:58

Figure 11b

User Command

Device Response

Display banner

- Retrieve metadata objects for the current time period and channel
- Assemble and display the banner:
 - form segment fields
 - display cursor in the current segment field
 - display program description in the banner
 - display segment description in the banner

Move cursor

- Display cursor in new segment field
- display segment description of new segment

Select

- Schedule a reminder for the segment on which the cursor is located

Record

- Display option to record whole program or segment only and receive selection
 - if viewer selects record whole program, begin recording and store any buffered portion
 - if viewer selects record segment and segment is current, begin recording
 - if viewer selects record segment and segment is future, schedule recording
 - if viewer selects record segment and segment is buffered, store segment as recorded content

Figure 12a

User Command

Device Response

Find more like this

- Retrieve program and segment metadata having categories, keywords, actors or directors in common with a segment on which the cursor is located
- Display information about the retrieved programs and segments
- OR
- Display user interface showing categories, keywords, actors and directors of the segment on which the cursor is located
- Receive input specifying which categories, keywords, actors and directors are of interest
- Retrieve program and segment metadata having the specified categories, keywords, actors or directors
- Display information about the retrieved programs and segments

Update preferences

- Update viewer preferences to reflect approval or disapproval of categories, keywords, actors or directors of a segment on which the cursor is located
- OR
- Display user interface showing categories, keywords, actors and directors of the segment on which the cursor is located
- Receive input specifying which categories, keywords, actors and directors are approved or disapproved
- Update viewer preferences to reflect approval or disapproval of specified categories, keywords, actors or directors

Figure 12b

SEARCHING FOR PROGRAMS AND UPDATING VIEWER PREFERENCES
WITH REFERENCE TO PROGRAM SEGMENT CHARACTERISTICS

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Sheet 14 of 19

Figure 13a

Segments	Start
Business Headlines	8:00
Market Update	8:04
Interest Rates	8:14
Earnings Reports	8:22
CEO Interview	8:30
Industry Focus	8:46
Tech Stock Rally	8:50
Economics Summit	8:54
Market Recap	8:58

106 {

100 ↙

108

CH: News 208 Date: 09/22/2003 Start: 8:00 pm Duration: 60 min	Business Day: Today's business news and information. Segment: Earnings Reports: IBM, Dell, Cisco; analyst comments	8:27 pm Ch 208 102 104
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Figure 13b

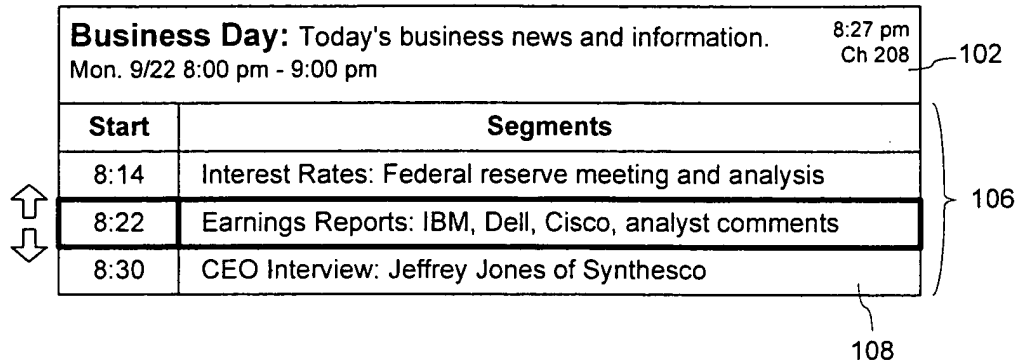
Segments	Start
Business Headlines	8:00
Market Update	8:04
Interest Rates	8:14
Earnings Reports	8:22
CEO Interview	8:30
Industry Focus	8:46
Tech Stock Rally	8:50
Economics Summit	8:54
Market Recap	8:58

106 {

100 ↙

108

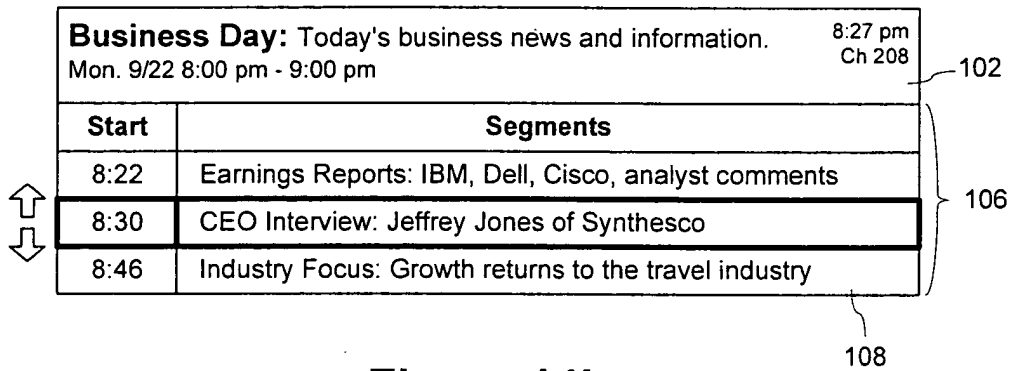
CH: News 208 Date: 09/22/2003 Start: 8:00 pm Duration: 60 min	Business Day: Today's business news and information. Segment: Industry Focus: Growth returns to the travel industry	8:27 pm Ch 208 102 104
--	--	---------------------------------



The diagram shows a table representing a program schedule. On the left side of the table, there is a vertical scroll bar with up and down arrows. On the right side, a bracket groups the table rows, and a label '106' is placed next to it. The table itself has a header row and three data rows. The header row is labeled 'Business Day: Today's business news and information.' and 'Mon. 9/22 8:00 pm - 9:00 pm'. The data rows are labeled 'Start' and 'Segments'. The first data row is '8:14 Interest Rates: Federal reserve meeting and analysis'. The second data row is '8:22 Earnings Reports: IBM, Dell, Cisco, analyst comments'. The third data row is '8:30 CEO Interview: Jeffrey Jones of Synthesco'. A label '102' is placed to the right of the header row, and a label '108' is placed below the table.

Business Day: Today's business news and information. Mon. 9/22 8:00 pm - 9:00 pm	
Start	Segments
8:14	Interest Rates: Federal reserve meeting and analysis
8:22	Earnings Reports: IBM, Dell, Cisco, analyst comments
8:30	CEO Interview: Jeffrey Jones of Synthesco

Figure 14a



The diagram shows a table representing a program schedule. On the left side of the table, there is a vertical scroll bar with up and down arrows. On the right side, a bracket groups the table rows, and a label '106' is placed next to it. The table itself has a header row and three data rows. The header row is labeled 'Business Day: Today's business news and information.' and 'Mon. 9/22 8:00 pm - 9:00 pm'. The data rows are labeled 'Start' and 'Segments'. The first data row is '8:22 Earnings Reports: IBM, Dell, Cisco, analyst comments'. The second data row is '8:30 CEO Interview: Jeffrey Jones of Synthesco'. The third data row is '8:46 Industry Focus: Growth returns to the travel industry'. A label '102' is placed to the right of the header row, and a label '108' is placed below the table.

Business Day: Today's business news and information. Mon. 9/22 8:00 pm - 9:00 pm	
Start	Segments
8:22	Earnings Reports: IBM, Dell, Cisco, analyst comments
8:30	CEO Interview: Jeffrey Jones of Synthesco
8:46	Industry Focus: Growth returns to the travel industry

Figure 14b

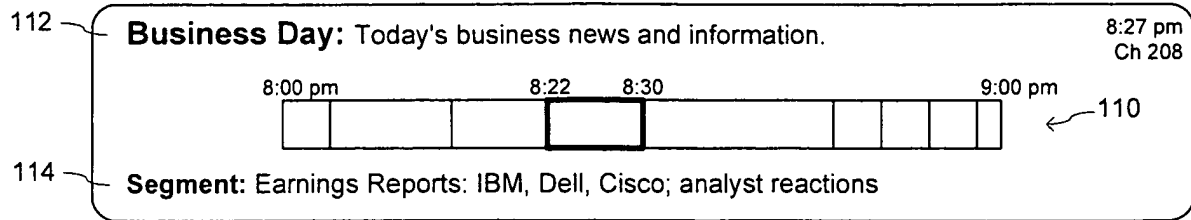


Figure 15a

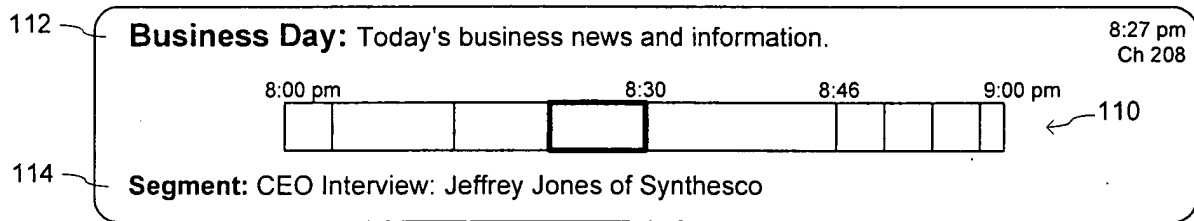


Figure 15b

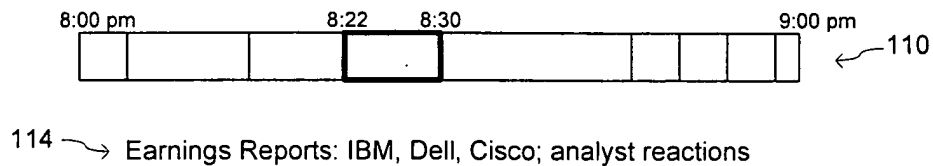


Figure 16a

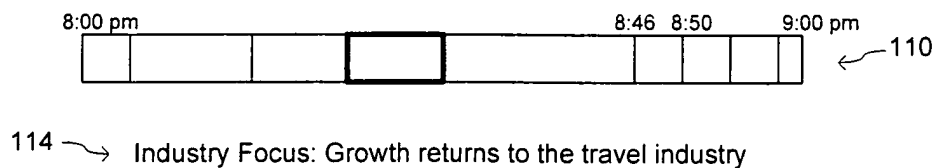


Figure 16b

88	Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208
90	Segment: Earnings Reports: IBM, Dell, Cisco; analyst comments Start: 8:22 Duration: 8 min				★★★ Earnings IBM
	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	
	204 SPRT	Sports Central		NFL Preview	
	208 NEWS		Business Day		News
	209 HOME	Design at Home		Decorating	
	243 LA 13	Giants @ Dodgers		Postgame Show	
	254 LA 24	Business Report	Today in Politics	Roundtable	
	258 LA 28	Nexus		Natural World	
	280 LA 50	Auto World	Sound Check	The Movie Critics	
84	288 LA 58	Collector's Hour		Investigation	

Figure 17a

88	Business Day: Today's business news and information. Mon 9/22 8:00 pm - 9:00 pm				8:27 pm Ch 208
90	Segment: CEO Interview: Jeffrey Jones of Synthesco Start: 8:30 Duration: 16 min				★ Business
	Mon 9/22	8:00 pm	8:30 pm	9:00 pm	
	204 SPRT	Sports Central		NFL Preview	
	208 NEWS		Business Day		News
	209 HOME	Design at Home		Decorating	
	243 LA 13	Giants @ Dodgers		Postgame Show	
	254 LA 24	Business Report	Today in Politics	Roundtable	
	258 LA 28	Nexus		Natural World	
	280 LA 50	Auto World	Sound Check	The Movie Critics	
84	288 LA 58	Collector's Hour		Investigation	

Figure 17b

106	Segments	Start	Interest	118	100	
	Peace Talks	9:00				
	Presidential Campaigns	9:03				
	Supreme Court Decision	9:09				
	Business	9:13				
	Sports	9:19				
	Entertainment	9:24				
	Weather	9:28				
CH: News 208		News: The day's news in thirty minutes.			9:14 pm	102
Date: 09/22/2003					Ch 208	
Start: 8:00 pm		Segment: Business: market recap; tech rally; oil price spike				104
Duration: 60 min						

Figure 18

Find more like:
Program: Business Day
Segment: Earnings Reports

124

Find

120

Category:

Keyword:

☐ News
☐ IBM

☒ Business
☒ Dell

☐ Earnings
☒ Cisco

☒ Technology

Figure 19

134 Approve 136 Disapprove

Category: Keyword:

☐ News ☒ IBM 132

☐ Business ☒ Dell

☐ Earnings ☒ Cisco

☐ Technology

130

Figure 20a

Categories: 1 2 3 4 5 6 7 8 9 10

News

Business 138

Earnings

Technology

Keywords:

IBM ☒ Cisco ☒ 132

Dell ☒ 140 Update

130

Figure 20b